Cerebral circulation and metabolic properties in patients undergoing normothermic cardiopulmonary bypass

Propositions pertaining to the thesis entitled

CEREBRAL CIRCULATION AND METABOLIC PROPERTIES IN PATIENTS UNDERGOING NORMOTHERMIC CARDIOPULMONARY BYPASS

1. Evoked variability of blood pressure through rhythmically changing pump flow, enables assessment of dynamic cerebral autoregulation during cardiopulmonary bypass (chapter 2 of this thesis).

2. Hemodilution combined with hypercapnia negatively affects dynamic cerebral autoregulation (*chapter 3 of this thesis*).

3. Retrograde autologous priming of the cardiopulmonary bypass circuit results in less hemodilution, consequently reducing intraoperative transfusion requirements (*chapter 4 of this thesis*).

4. Volume buffer capacity added to the venous line effectively dampens sub-atmospheric pressure fluctuations during kinetic assisted drainage, thereby decreasing gaseous microemboli formation (*chapter 5 of this thesis*).

5. Retrograde autologous priming as well as applying minimized cardiopulmonary bypass systems should form an integral part of a multimodal approach for conservation of blood transfusion (*valorisation chapter of this thesis*).

6. A successful cardiac operation, is one ending with a healthy brain.

7. Scientific inquisitiveness has no age.

8. I put my heart and soul into my work and have not lost my mind in the process - challenging a quote by Vincent Van Gogh.

9. A good head and a good heart are always a formidable combination - Nelson Mandela.

10. "You do not have the right to die if you do not leave something important behind." My wife told me a few days before she left this world.

Ervin E. Ševerdija, January 28, 2015